

REMARKS

The Office Action dated 20 June 2002 has been fully considered. Claims 1-21 are pending in this application. Reconsideration of the claims is respectfully requested.

In paragraph 1 on page 2 of the Office Action, claims 1-6, 9 and 19-21 are rejected under 35 U.S.C. §102 (e) as being anticipated by U.S. Patent 6,173,173 issued to Dean et al (hereinafter Dean).

The Applicants respectfully traverse this rejection for the following reasons.

Applicant's claim 1 sets forth, among other steps, a method for performing a detach of a terminal registered to a telecommunication network by associating an identification for the terminal, deriving a signature for the identification, and allocating a pair consisting of the identification and the signature to the terminal. The method comprises sending a detach request including the identification (e.g. TMSI) and the identification signature (e.g. TMSI_SIG) from the registered terminal to the network, receiving the detach request at the network side, comparing the received detach request with a record of registration data of the terminal kept at the network side, and detaching the terminal from the network, if the received detach request coincides with the record of registration data.

In other words, the identification TMSI and the signature TMSI_SIG assigned to the mobile station, being established at registration, is used for detach procedures. The detach procedure being instigated by the mobile station through the transmission of a detach request message containing both the identification, TMSI, and the signature, TMSI_SIG, previously allocated to the mobile station by the network. Upon

Page 2
Docket Number:975.311USW1
Office Action Response

successful comparison of the TMSI and TMSI_SIG to a record of registration data, the call is then detached.

➤ Dean, on the other hand, does not teach that the detach request sent by the client also includes an identification and an identification signature, which is in contrast to Applicant's claimed invention. Rather, Dean teaches that the client first must request that a call be torn down and in response, the server challenges the request by transmitting a random key to the requesting client. The requesting client then must generate a signature using the random key sent by the server and a secret password. Once generated, the signature is transmitted with the kill call request from the requesting client to the server. See Column 7 lines 24-34. Dean, therefore, significantly increases the amount of overhead involved with kill call requests, as compared to the significantly reduced overhead as set forth in Applicant's claimed invention.

It should be noted also, that Dean does not allocate the signature until the client wishes to initiate a kill call request. In contrast, Applicant's claimed invention as set forth in claim 9, for example, establishes the identification (TMSI) and signature (TMSI_SIG) pair upon registration of the mobile subscriber. The pair is then subsequently used to authenticate detach requests originating from the mobile subscriber, as discussed above.

Applicant respectfully submits, therefore, that claims 1 and 9 patentably distinguish over Dean and are in condition for allowance.

Dependent claims 2-6 and 19-21, which are dependent from independent claim 1, are also rejected under 35 U.S.C. §102(e) as being unpatentable over Dean. While

Page 3
Docket Number:975.311USW1
Office Action Response

Applicant does not acquiesce with the particular rejections to these dependent claims, it is believed that these rejections are now moot in view of the remarks made in connection with independent claim 1. These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these claims from the cited references. Therefore, dependent claims 2-6 and 19-21 are also in condition for allowance.

In paragraph 2 on page 3 of the Office Action, claims 7-8 and 10-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dean in view of U.S. Patent 5,765,105 issued to Kuriki.

The Applicants respectfully traverse this rejection for the following reasons.

Dean fails to teach at least that the TMSI and TMSI_SIG identification pair is generated at registration and further that the pair may be later used for detach purposes, as discussed above. Any reference cited against Applicant's claims, when used in combination with Dean, must teach at least these features along with a motivation to combine these features with Dean in order to be considered a valid reference under 35 U.S.C. § 103(a).

Since Kuriki fails to teach such features as admitted by the Office Action, Applicant submits that Kuriki taken alone or in combination with Dean also fails to teach such features. Applicant submits, therefore, that dependent claims 7-8 and 10-18 patentably distinguish over the combination of Dean and Kuriki and are in condition for allowance.

Page 4
Docket Number:975.311USW1
Office Action Response

CONCLUSION

In view of the reasons provided above, it is believed that all pending claims are in condition for allowance. Applicant respectfully requests favorable reconsideration and early allowance of all pending claims.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's agent of record, Michael T. Wallace, at 952-253-4127.



Respectfully submitted,

Date: 9-20-02

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Page 5
Docket Number: 975.311USW1
Office Action Response

Appendix A Marked Up Version of the Entire Claim Set

1 1. (Unchanged) A method for performing a detach of a terminal registered
2 to a telecommunication network by associating an identification for said terminal,
3 deriving a signature for said identification, and allocating a pair consisting of said
4 identification and said signature to said terminal, said method comprising the steps of:
5 sending a detach request including said identification and said identification
6 signature from said registered terminal to said network;
7 receiving said detach request at the network side;
8 comparing said received detach request with a record of registration data of
9 said terminal kept at the network side; and
10 detaching said terminal from said network, if said received detach request
11 coincides with said record of registration data.

1 2. (Unchanged) The method according to claim 1, wherein sending of said
2 detach request message is initiated upon detection of a predetermined state of said
3 terminal.

1 3. (Unchanged) The method according to claim 2, wherein said
2 predetermined state is a power off state.

1 4. (Unchanged) The method according to claim 2, wherein said
2 predetermined state is a low battery state.

Page 6
Docket Number: 975.311USW1
Office Action Response

1 5. (Unchanged) The method according to claim 2, wherein said
2 predetermined state resides in a removal of a SIM module from said terminal.

1 6. (Unchanged) The method according to claim 1, wherein said record of
2 registration data contains said pair consisting of said identification and said
3 identification signature, and said comparison is effected for each of said data items
4 forming said pair.

1 7. (Unchanged) The method according to claim 1, wherein said
2 identification is the temporary mobile subscriber identity.

1 8. (Unchanged) The method according to claim 1, wherein said
2 identification is the international mobile subscriber identity.

1 9. (Unchanged) A method for registration of a terminal to a
2 telecommunication network, said method comprising the steps of:
3 associating an identification for said terminal;
4 deriving a signature for said identification; and
5 allocating a pair consisting of said identification and said signature
6 to said terminal.

1 10. (Unchanged) The method according to claim 9, further comprising the
2 step of sending a registration request from said terminal to said network and wherein
3 said associating is effected in response to the receipt of said registration request.

Page 7
Docket Number:975.311USW1
Office Action Response

1 11. (Unchanged) The method according to claim 10, wherein said
2 registration request is an attach request for initial registration of said terminal in said
3 network.

1 12. (Unchanged) The method according to claim 10, wherein said
2 registration request is a location update request for updating a previous registration of
3 said terminal in said network.

1 13. (Unchanged) The method according to claim 10, wherein said
2 registration request is a cell update request for updating a previous registration of said
3 terminal in said network.

1 14. (Unchanged) The method according to claim 10, wherein said
2 registration request is a URA update request for updating a previous registration of
3 said in said network.

1 15. (Unchanged) The method according to claim 9, wherein said associating
2 of said identification is arbitrary.

1 16. (Unchanged) The method according to claim 9, wherein said allocating is
2 effected in a secure mode.

1 17. (Unchanged) The method according to claim 9, wherein said
2 identification is the temporary mobile subscriber identity.

Page 8
Docket Number:975.311USW1
Office Action Response

1 18. (Unchanged) The method according to claim 9, wherein said
2 identification is the international mobile subscriber identity.

1 19. (Unchanged) A terminal device adapted to the method according to claim
2 1.

1 20. (Unchanged) A network controlling device adapted to the method
2 according to claim 1.

1 21. (Unchanged) A telecommunication system consisting of at least one
2 terminal and at least one network controlling device controlling at least one radio
3 transceiver device, adapted to carry out the method according to claim 1.